# Aerial Photogrammetry of North Atlantic Right Whales, *Eubalaena glacialis*

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We collected vertical aerial photographs of North Atlantic right whales in the Bay of Fundy using an image motion compensated 5" format, military reconnaissance camera that we mounted vertically over the camera port in one of NOAA's Twin Otters during August 2000, 2001 and 2002. At present, about 105 whales have been matched to the New England Aquarium catalogue from the 2000 field season and approximately 68 (+18 calves) whales were identified from the 2001 sample. For each whale, we attempted to measure total length, the width at the widest point, the distance from the rostrum to the widest point, and the width of the flukes. We measured total length for 100 matched whales and 18 calves. A growth curve will be presented based on lengths of whales of known age. Adult females, identified here as whales seen with a calf, averaged 13.7 m (range 12.9 - 14.7). We found a nearly significant (P=0.06) linear relationship between the length of cows and their associated calves. Although there was no apparent difference in the length-width relationship between the 2000 and 2001 seasons, cows with calves were found to be significantly narrower than other right whales. These results suggest that relatively small changes in the nutritive condition of right whales, caused here by the physiological demands of lactation, can be detected in measurements from vertical aerial photographs.